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Pennsylvania Historical and
Museum Commission.
In Midstream

IN MIDSTREAM



Photo courtesy of City of Harrisburg

ARCHAEOLOGY OF CITY ISLAND

HARRISBURG, PENNSYLVANIA

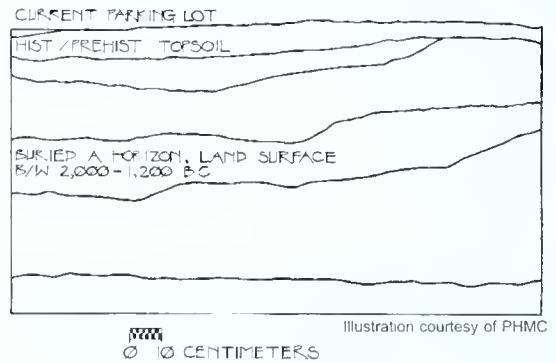
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History of the Island

Some 12,000 years ago, the Susquehanna River was an even larger and more imposing waterway than it is today. At that time the immense continental glacier of the Ice Age was melting, and the resulting meltwater made the great river run as much as forty or fifty feet higher than it does today. As the river slowly calmed down, by about 10,000 years ago, it began to deposit mud on a slightly elevated part of the river's rocky bed beneath what is now City Island. With each year's flooding, more mud was deposited on this high spot; a natural and ongoing process that eventually produced the modern City Island, a deposit of river mud that is now at least fifteen feet deep! This deposition of mud has never proceeded at a steady rate, but has varied in response to changes in Pennsylvania's climate.

Central Pennsylvania's climate has changed several times since the end of the Ice Age. We know this by studying palynology, the process of reconstructing plant communities and climate from samples of pollen buried deep in soil and bog deposits; and geomorphology, which is the study of the evolution and history of landscapes. During periods of high rainfall and frequent flooding, the Island grew quickly. During periods of lower precipitation and warmer temperatures, the rate of new deposition slowed. During these drier periods, the middle of the Island, where the Pennsylvania Historical and Museum Commission (PHMC) archaeologists have been working, was rarely flooded, and this stability allowed the formation of organic "topsoils" or A horizons. These A horizons, which typically require 200 years or more to form, can be recognized in cross-sections as dark bands in the light tan flood deposits. On close inspection, charcoal, bits of bone and shell, and stone ceramic artifacts can be seen in the A horizons. These horizons, separated from each other by flood deposited river mud, are like layers in a cake, with successively older soils stacked beneath each other. On City Island, they represent surfaces that Stone Age Native Americans lived on for varying periods of

time, and they provide archaeologists and site visitors with a remarkable window into the Island's long and rich history. The profile below shows the occupational levels being excavated at City Island.



The Native Americans

It is very likely that Native Americans, who arrived in Pennsylvania more than 12,000 years ago, began to use City Island as soon as it was dry and stable enough to allow people to camp there, by about 8,000 years ago. To date, no archaeological excavations have explored the oldest and deepest of the Island's prehistoric occupations, though such explorations are planned for the future. Presently, the research is focused on the occupations found just beneath the parking lot, to a depth of perhaps four feet below the surface.

In this part of the Island, an A horizon that appears to date to a period between 3,000 and 5,000 years ago was encountered a foot or so below the blacktop. This area has produced many stone spearpoints, most of them of the same general type. Most points were about three inches long, an inch wide, and very thin. They all have a well-defined stem (as shown), with parallel edges



and a squared base. They are all made of rhyolite, a stone found only in the South Mountain area, some 30 to 60 miles to the southwest near the Maryland border. Many chips and flakes of rhyolite, the waste material left behind from the manufacture of stone tools, have been found with these points. Heavy stone axes and hand axes or celts, tools intended for heavy woodwork, also have been found in association with the spearpoints. Archaeological features, such as the small round stains left by decayed wooden posts, or a large cooking hearth full of fire-cracked rock, charcoal, carbonized nutshell, and bone, have been found as well. The thousands of artifacts and dozens of features encountered so far tell us something about day-to-day life in what archaeologists call the Archaic period of Pennsylvania's past.

“... they likely lived in small family bands of perhaps 25 to 50 people ...”

We have no idea what the people who made those stemmed spearpoints called themselves, as they left no written record of their lives. Archaeologists call their distinctive spear points by several names, including Bare Island and Lackawaxen, and such points have been associated with radiocarbon dates at other sites that are roughly 4,000 to 4,500 years old. Since agriculture would not be adopted in Stone Age Pennsylvania for another 3,000 years or more, we know these people made their living by hunting and gathering wild resources of many kinds. Based on what we know about hunting and gathering people worldwide, they likely lived in small family bands of perhaps 25 to 50 people, and were related to other bands of Stone Age people throughout the lower Susquehanna Valley by blood or marriage. Their use of rhyolite indicates that they had trade connections, and maybe family connections as well, to the South Mountain area. Since the Island was undoubtedly a wet and uncomfortable place to camp in winter and

early spring, we believe they only stayed here for part of each year, certainly in the fall, based on the nutshells recovered from their features. They clearly spent their days manufacturing and sharpening stone tools, based on the rhyolite chips scattered around their campsite. Food was prepared in quantity, either by roasting on or boiling with hot rocks, based on the

hundreds of pounds of fire cracked rock and the charcoal filled features they left behind. The numerous stone axes and celts recovered mean that large scale woodworking chores were common on the Island, perhaps even the manufacture of dugout canoes to carry people and goods across and along the river. The sheer volume of material encountered indicates that these small groups of people returned to the same location repeatedly, gradually producing a substantial record of their time and activities on the Island.

Even though the actual window excavated into the world of these people is small, what the archaeologists have seen through it has already told us much about day-to-day life in Archaic Pennsylvania. The Archaic Period was one of rapid environmental change and corresponding changes in the technology, settlement practices, and economies of Native Americans. One of the most important goals of the City Island project is to better document and understand those changes. As the project expands and analysis and research continue, we will come to know these people even better, and deeper excavations will undoubtedly introduce us to even earlier visitors to the Island.



Photo courtesy of PHMC

During this excavation, a hearth full of fire cracked rocks was uncovered. It is presumed that this hearth was used during food preparations.

The City Island Project

Past and Future

Every October since 1994, the Pennsylvania Historical and Museum Commission (PHMC) and the City of Harrisburg have cooperated to produce a public celebration of the Island's past during the Commonwealth's annual Archaeology Month. PHMC archaeologists, with the help of the City's Parks and Public Works Departments, have conducted public excavations on the Island and public demonstrations and experiments in primitive technologies and skills. Those excavations and experiments have taught us a great deal about the formation and history of the Island itself and the people who have visited and lived on it since the end of the Ice Age. They also have served to introduce thousands of Central Pennsylvania residents to the archaeology of their own backyard.



Photo courtesy of PHMC

A flint knapper demonstrates the making of stone tools to a group of children.

As a result of a multi year agreement between the City and the PHMC, the Archaeology Month celebrations and public excavations on City Island should continue into the 21st century. The project will result in exhibits, publications, and films that will make the City Island project available to the widest possible audience and add much to what is known about daily life in Stone Age Pennsylvania. Our goal is to try to bring the modern residents of the lower Susquehanna Valley face to face with their own past. Only through public educational efforts, like this project, can modern people begin to grasp the accomplishments, challenges, and daily lives of countless generations that came before them.

SAVE THE PAST FOR THE FUTURE



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